

Application Serial No. 10/529,455

Reply to office action of November 12, 2008

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Docket: CU-4125Amendments To The Claims

The listing of claims presented below will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1. (currently amended) A data exchange and storage device, comprising:
 - a controller module including a firmware used for controlling the operation of each of modules in the data exchange and storage device and performing data processing and information exchange;
 - an internal memory module for storing data under the control of the controller module;
 - a system interface module capable of being connected with a data processing system and performing data exchange with the data processing system under the control of the controller module;
 - an external storage equipment interface module being connected with an external storage equipment and performing data exchange with the external storage equipment under the control of the controller module; and
 - an audio module and/or a video module for combining with the internal memory module or external storage equipments to implement a function of playing multi-media, multi-media,

wherein the controller module permits data exchange and data access between any two of the data processing system, the internal memory module, and the external storage equipment, and permits data exchange and data access from the internal memory module to the external storage equipment and from the external storage equipment to the internal memory module when the without the data processing system is not connected.

2. (previously presented) The data exchange and storage device of claim 1, wherein the internal memory module includes a hard disk, a removable hard disk, a semiconductor storage, and an optical medium storage.

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3. (original) The data exchange and storage device of claim 2, wherein the storage medium of the semiconductor storage is selected from one of Flash Memory, DRAM, EEPROM, SRAM, FRAM, MRAM and Millipede, and adopts one or more semiconductor chips.
4. (previously presented) The data exchange and storage device of claim 1, wherein the system interface module includes USB interface, IEEE1394 interface, Bluetooth interface, IrDA infrared interface, HomeRF interface, IEEE802.11a interface, IEEE802.11b, IEEE802.11g, SCSI, RS232 and printer parallel port, wired wide area/local area interface and/or wireless wide area/local area interface.
5. (previously presented) The data exchange and storage device of claim 1, wherein the external storage equipment interface module includes SM, CF, MMC, SD, MS, MD or x-D interface.
6. (previously presented) The data exchange and storage device of claim 1, wherein the system interface module and the external storage equipment interface module either include single interface or a group of interfaces of the same type or different types of interfaces.
7. (previously presented) The data exchange and storage device of claim 1, further comprising a power source module for supplying power to the data exchange and storage device from the data processing system through an external power source or a self-supplied battery or the system interface module.
8. (previously presented) The data exchange and storage device of claim 1, further comprising a manual control module for performing the manual control of data capture and transmission, information prompt, and operational mode switching.
9. (previously presented) The data exchange and storage device of claim 8,

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wherein the manual control module includes a dial switch and keys.

10. (previously presented) The data exchange and storage device of claim 1, further comprising an information prompt module for displaying static information and dynamic information.

11. (original) The data exchange and storage device of claim 10, wherein the information includes user information, product information, device information, transmission file information, operational state information and the information of external storage equipments which are connected therewith.

12. (previously presented) The data exchange and storage device of claim 10, wherein the information prompt module includes at least one of a liquid crystal display, a light emitting diode, a sound device and a vibrator.

13. (cancelled)

14. (previously presented) The data exchange and storage device of claim 1, further comprising an eject device arranged at the interface of the external storage equipment interface module, the eject device may eject the external storage equipment after being pressed.

15. (previously presented) The data exchange and storage device of claim 1, wherein the external storage equipment interface module is capable of receiving a removable disk or a storage card.

16. (currently amended) A method of data exchange and storage for realizing data exchange and data storage between the data exchange and storage device, the external storage equipment and the data processing system host through the data exchange and storage device of claim 1, comprising the steps of:

- 1) the controller module of the data exchange and storage device detecting

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the characteristic information of the external storage equipments connected with the relevant interfaces of the external storage equipment interface module, selecting the relevant interface protocols according to the characteristic information of the external storage equipments, and establishing connections with the external storage equipments;

2) the controller module controlling ~~the data exchange between the data exchange and storage device and the external storage equipment or the data processing system, and controlling the access to the internal memory module and the external storage equipment according to the requests from the data processing system or users~~ data exchange and data access between any two of the data processing system host, the internal memory module of the data exchange and storage device, and the external storage equipment, and controlling data exchange and data access from the internal memory module to the external storage equipment and from the external storage equipment to the internal memory module without the data processing system.

17. (previously presented) The method of data exchange and storage of claim 16, further comprising: the controller module displaying the data read from the external storage equipment or the internal memory module on a display part of an information prompt module according to the operational instructions of the data processing system and the users; and/or

outputting the user information, the operational state information of the data exchange and storage device, the relevant information of the external storage equipment through the information prompt module.

18. (previously presented) The method of data exchange and storage of claim 16, further comprising: playing a multi-media data read from the external storage equipment or the internal memory module through an audio module and/or a video module according to the operational instructions of the data processing system and the users.

19. (previously presented) The method of data exchange and storage of claim 16,

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further comprising: a manual control module transmitting the operational instructions, such as, storing user data, prompting information, switching operational modes, etc., to the controller module.